

## Detection of Salmonella Spp. Carriers in Small Ruminant Flocks of Bushehr

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**Background & Objectives:** Salmonella Spp. is an important human and animal pathogen that may cause severe gastroenteritis, sepsis and occasionally death. Farm animals, especially poultry, pigs and cattle, are major reservoirs of different Salmonella serotypes associated with human salmonellosis. Sheep and goats have also shown to be potential carriers and symptomless shedders of Salmonella. The objective of this survey was to estimate the prevalence of faecal carriage of Salmonella in healthy sheep and goats in nomadic flocks of Bushehr.

**Methods:** Fecal samples were directly collected aseptically from the rectum of apparently healthy sheep and goats. A total of 200 samples were collected from small ruminants of 13 flocks in Bushehr province. Fecal samples were transferred aseptically to 10 ml of selenite cystine and 10 ml of Rappaport–Vassiliadis broth and incubated for 18–24 h at 37 and 42 °C, respectively. A loopful of each enrichment broth was streaked onto pre-incubated brilliant green-phenol red-lactose-sucrose agar and xylose lysine deoxycholate agar and incubated at 37 °C for 24 h. The plates were then examined for the presence of Salmonella colonies. Suspected colonies were tested for the presence of Salmonella antigens by slide agglutination tests using Salmonella polyvalent antisera I and II (Sifin, Berlin, Germany), according to the manufacturer's instructions.

**Results:** Out of the total 200 animals examined, 2 (0.5%) were Salmonella carriers.

**Conclusion:** The carriage rate of Salmonella in sheep and goats flocks in Bushehr was very low. Our result suggests that the risk to the consumer from small ruminant's meat is low, especially when the meat will be cooked prior to consumption but the presence of carrier animal in flock could be a source of persistent infection in environment.

**Keywords:** Salmonella; Small Ruminant; Bushehr